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ABSTRACT

Although some writers argue that attitude change is the key influence in behavior change, the accumulated research is far from supportive. The perceptual process of attribution can provide the necessary perspective from which to integrate these findings and stimulate new research. The role of attribution theory in the attitude-behavior relationship seems to be a crucial one. The attributions a person makes determine whether or not his attitudes are related to his behavior in any situation. The individual's perceptual point of view, the attributions that he associates with a behavior based on the appropriate attitudes, beliefs, social norms, and personal motives, affects how he organizes the information and data in his environment to make it understandable. Especially in the prediction of behavior, one must relate the cognitive system of a person to his behaviors. (LG)

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THE ROLE OF ATTITUDES IN THE PREDICTION OF BEHAVIOR: A NEW PERSPECTIVE

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It is a time honored assumption of theories of social influence that attitudes are related to behavior. On the basis of this assumption many speech communication texts have argued that attitude change is the keystone of influence. When a person's attitude is changed it is assumed that his behavior will also be affected. Thus, while the communicator may control such factors as credibility, organization, fear appeals, etc., the ultimate focus of this control is the attitudes and behavior of the receiver. However the accumulated evidence on this topic has been far from supportive of the assumed relationship. The relationship between attitudes and behavior has proved to be much more complicated than envisioned by many people. Thus, because of the vital role played by attitudes and behavior in communication, it is important to attempt a definition of the relationship between the two. In this paper we shall: a) briefly examine the literature on the relationship between attitudes and behavior, b) discuss several proposed explanations for the apparent discrepancy, c) take a closer look at Fishbein's comprehensive approach to the problem and d) propose a new perspective on the relationship between attitudes and behavior.

Review of the Literature:

LaPiere (1934) first pointed out the discrepancy between attitudes and behavior when he found a negative relationship between the verbal attitudes of hotel operators and their overt behavior toward a Chinese couple. This initial finding of an attitude-behavior discrepancy has been replicated and extended to other areas of research since then with findings of little (DeFleur and Westie, 1958; Linn, 1965), or no relationship (Saenger and Gilbert, 1950;

Kutner, Wilkins and Yarrow, 1952; Minard, 1952; Fishman, 1961; Wicker, 1969).

When the element of change is added to the attitude-behavior relationship, the findings are even less encouraging (Cohen, 1960; Festinger, 1964; Rokeach, 1966-1967). In examining the literature on this question, Festinger (1964) found only three studies that could be interpreted as relating to this problem, all of which revealed either no relationship or a negative relationship. Greenwald (1965) purported to find a significant positive relationship between attitude change and behavior change, however his findings involved verbal learning in a high demand situation which limits the generalizability of this result. Thus, the accumulated evidence for a one-to-one relationship between attitudes and behavior, with or without the element of change, is sparse.

Proposed Explanations for the Discrepancy:

In an effort to explain this discrepancy, three conceptual rationales can be isolated: 1) that which postulates a consistent relationship, 2) that which postulates an independent relationship, and 3) that which postulates a contingent relationship.[1] Many of the scholars who have dealt with this problem have proposed solutions that are a blend of these three approaches, but for the purposes of analysis it is valuable to separate them because of the different philosophical assumptions that underlie each. First, the classical consistency approach has embodied the idea of a one-to-one relationship between attitudes and behavior in some form. This was the point of view tested by LaPiere (1934) and many other experimenters since then (Saenger and Gilbert, 1950; Kutner, Wilkins and Yarrow, 1952; Minard, 1952; DeFleur and Westie, 1958). The notion was also reflected in Likert's 1932 definition of attitudes as expressions of desired behavior.

However, as the previously cited evidence of a discrepancy has accumulated, this position has become untenable causing its adherents to develop two variant positions. First, they argue that the unidimensional approach to attitudes must be discarded in favor of a multidimensional concept of attitudes such as the trichotomist conception of attitudes as having three components: affective, cognitive and conative. This approach has lead to investigations of the relationship between these three components. It has been successful in showing a consistent relationship between the affective and cognitive components (Rosenberg, 1960; Triandis, 1964; Rokeach, 1968), however, the vital link to the conative (behavioral) component has not been shown (Fishbein, 1968; Bostrom, 1970).

A second variation of the consistent relationship point of view has been to argue for imprecision of measuring instruments (both attitudinal and behavioral) and/or the inappropriateness of stimulus objects (LaPiere, 1934; Miller, 1967; Tittle and Hill, 1967). The imprecise measurement argument has questioned the validity and appropriateness of most measuring instruments to correctly assess the attitudes or behaviors in question. For example, Tittle and Hill (1967) have attempted to show that those studies which have employed multi-item attitude measures and behavioral patterns have produced stronger relationships between attitudes and behavior. But despite numerous refinements in scales (primarily attitudinal), a consistent relationship still has not resulted (DeFleur and Westie, 1958; Fishbein, Ajzen, Landy, and Anderson, 1970). Those who have objected to the stimulus object measured have done so on the grounds that the objects have been too global or that the wrong object has been measured. Fishbein has been particularly interested in this area and has proposed changes in both the attitude object measured and the behavioral measure. While these changes

have been valuable, several questions have been raised about the methodology used in them (Smith, 1972; Hazen, 1972).

The second proposed conceptualization, that of an independent relationship, has grown out of learning theory and is based on a concern for the observable and the nature of learned relationships (Doob, 1947). This viewpoint looks on attitudes as learned responses that may or may not be associated with some form of behavior, which makes it possible for two people with the same attitude toward an object to have different behaviors or no behavior at all. When a consistent relationship does develop between an attitude and an object, it is the result of reinforcement and conditioning. The only way that attitudes and behavior can be observed is through forms of observable behavior which can be identified as verbal behavior and overt behavior. Thus, because of its emphasis on the observable nature of behavior, many proponents of this viewpoint have called for the abandonment of the mediating or hypothetical idea of an "attitude" in favor of observable forms of behavior (DeFleur and Westie, 1963; Zimbardo and Ebbeson, 1965; Mischel, 1967; Cronkhite, 1969). While this approach may seem to be a way out of the attitude-behavior dilemma, it comes up short in that: a) reinforcement has not proved to be a satisfactory causal explanation (Fishbein, Ajzen, Landy and Anderson, 1971), and b) this approach shifts the emphasis from attitudes as an indication of a cognitive component to attitudes as a verbal behavior in and of itself, thus ignoring the whole cognitive component of behavior.

The third proposed conceptualization, that of a contingent relationship, posits the existence of interactional concepts that mediate the relationship between attitudes and behavior. In this approach to the problem some theoretical system is used to specify the nature of the relationship between attitudes and

behavior in terms of other variables, usually of a social nature. To the extent that different theoretical viewpoints are used, the nature of the attitude-behavior relationship may differ, but the common focus of these approaches is upon the interaction of the relationship with other variables.[2] Proponents of this viewpoint have introduced such variables as social constraint, social distance (Warner and DeFleur, 1969), commitment (Fendrich, 1967; Kiesler, 1971), reference groups (DeFriese and Ford, 1969), and social situation in general (Bellin and Kriesberg, 1967; Lohman and Reitzes, 1954) into the attitude-behavior relationship. While these approaches have proved promising, they have been lacking in comprehensiveness in that they usually only take into account one or two variables. To the extent that a more comprehensive approach is adopted, the question for inquiry broadens to that of discovering what factors lead to a consistent prediction of behavior.

The one comprehensive approach to the problem using mediating variables that has been formulated so far is that of Martin Fishbein (1968). Fishbein has proposed that behavior can be predicted by taking into account three of the previously mentioned factors: 1) a specific attitude toward the act (A-act) which is measured in terms of his A-B scales,[3] 2) the normative factors of the situation such as personal (NBp) and social norms (NBs), and 3) a motivational component concerned with complying with the normative component (MCp & MCs). This conceptualization, while similar to some of the concepts previously discussed, is adapted from Dulany's theory of propositional control for verbal learning (Dulany, 1961, 1967). The resulting learning theory approach is

evident in Fishbein's argument that no strong underlying relationship need exist between attitudes and behavior because attitudes are unidimensional evaluative factors which are learned predispositions. Fishbein has operationalized these concepts in the form of a multiple regression equation: $B \simeq BI = (A\text{-act})w_o + [(NB_p)(MC_p)]w_1 + [(NB_s)(MC_s)]w_2$.

There are four published reports which test the validity of this conceptualization: Fishbein, Ajzen, Landy and Anderson (1970), Ajzen and Fishbein (1969), Ajzen and Fishbein (1970), and Ajzen (1971). Ajzen and Fishbein (1969) while not measuring behavior found a significant correlation between the predictor variables of the equation and behavior intentions, in simple, dichotomous and multiple behavior situations. Ajzen and Fishbein (1970) used a Prisoner's Dilemma game to measure the equations ability to predict behavior and found that the last eight moves of the game could be accurately predicted on the basis of the predictor variables measured after the first twenty moves. Fishbein, Ajzen, Landy and Anderson (1970) in a series of studies first tested the effect of three explanations on the attitude-behavior relationship: 1) that the measure of attitude is incomplete, 2) that the measure of attitude is inappropriate, and 3) that reinforcement mediates the relationship. They found that none of these variables were adequate explanations in and of themselves, but that they played a role when mediated by the components of the equation. In addition, they found that there was a significant multiple correlation between the equation predictors and behavior intentions, and between the equation and behavior. Ajzen (1971) measured the differential effects of persuasive communications upon behavior using a Prisoner's Dilemma situation. He found that attitude toward the act (A-act) was more important than social normative beliefs

(NBs MCs) in predicting behavior intention (BI) and behavior (B) under competition, but less important than social normative beliefs (NBs MCs) under cooperation. He also found that an attitudinal message would change behavior more effectively in the competitive situation than in the cooperative situation, while the normative message would be more effective in cooperative than in competitive groups.

Hazen (1972) tested the generalizability of some of the aspects of Fishbein's work in a situation involving political campaigning. The design manipulated the variables of change and social constraint to analyze the effects upon attitudes and behavior. The results yielded a high significant multiple correlation, but the predictability of individual criterion factors were not significant except for personal normative beliefs. In addition, the components of the equation inadequately reflected the concept of social constraint.

While the results of Fishbein's work have been encouraging, several serious questions and criticisms can be raised about it. First, in the tests of his formulations Fishbein and his associates have used forms of behavior that are highly restricted and in many ways seem artificial. In two instances these behaviors have consisted of Prisoner's Dilemma games and in the other instance, a task of balancing a table through spirit levels. While admitedly an important first step in research, serious questions can be raised about the generalizability to more complex behavior situations (Hazen, 1972). Second, Fishbein has depended heavily on a construct called behavior intention, which is simply what the subject says he intends to do in a particular situation. Several experiments have relied on this construct solely and the others have sought to correlate it with behavior with highly positive results. However, several of his

correlations are suspect because he measured behavior intentions after performance of the behavior and in instances where behavior is already measured it becomes an unnecessary construct (e.g. Ajzen, 1970; Fishbein, Ajzen, Landy, and Anderson, 1970). In addition, since the measure cannot be computed from the equation, it either becomes unnecessary or it obviates the need for the equation's predictors. Third, the procedures for measuring the components of the equation, behavior intentions, and the forms of behavior, all combine to contribute a strong demand characteristic to his work. When a subject is asked to indicate his attitude toward an act (A-act), what his friends expect of him in respect to the act (NBs), his behavior intentions to the act (BI), and his actual behavior (B) all in close temporal and sequential proximity, then it is not surprising that high correlations are obtained. Fourth, the element of commitment may play a strong part in the results that Fishbein obtains. When within the measurement sequence the individual is asked to do such things as indicate what behavior he intends to do, then this may have the effect of freezing his attitude in terms of a verbal commitment and thus increase the correlation.

Fifth, there seems to be a question as to what is the best form of the equation that Fishbein has proposed. From the original equation, NB_p and MC_p have been dropped out for one reason or another, but Hazen (1972) examined several forms of the equation and found the most satisfactory correlations with the original form of the equation. Sixth, Fishbein's approach to A-act may be forcing subjects into attitudes that they have not articulated. On the whole it seems that people's attitudes are largely unarticulated and that when called upon to articulate them without sufficient experience with the attitude object,

they make attributions on the basis of other already articulated attitudes (Smith, 1972; Kiesler, 1971). If this happens then the attitude measured may be in no way related to attitudes brought into play if the person came in contact with the attitude object. Seventh, NB_p and MC_p were both dropped out in Ajzen and Fishbein's 1970 study because NB_p was found to be statistically equivalent to BI. To the degree that it is equivalent to BI, it should not be dropped out of the equation, but instead should take on added importance because of the high degree of predictive power it provides. In addition, Carlson (1968) and Hazen (1972) both found NB_p to be an important differential variable in predicting behavior. When simple correlations between the elements of the equation were examined by Hazen (1972), it was found that NB_p had a highly significant positive correlation with A-act under all conditions, thus suggesting that NB_p and A-act may not be independent.

Eighth, Fishbein has proposed that any other variable not in the equation that influences the attitude-behavior relationship does so indirectly through the components of the equation. If this is so, then it is reasonable to test the responsiveness of the components of the equation to variables that have been shown to influence the attitude-behavior relationship in other studies. For example, Warner and DeFleur (1969) have shown that social constraint is an important variable in the relationship, but when Hazen (1972) sought to demonstrate this relationship only a sluggish responsiveness could be obtained. (It should be noted that Ajzen, 1971, has shown that the equation is quite responsive to manipulation of the attitude and normative components, at least in a Prisoner's Dilemma situation). Ninth, if the equation can account for behavior in terms of the predictors, then it should be expected to still

account for it when the element of change is introduced. While none of Fishbein's work has touched on this, Hazen (1972) did attempt to test this problem, however his results are inconclusive.

In overview, Fishbein's formulation is insufficient because his equation fails to predict well in terms of actual behavior and he treats stimulus variables as constants while not inquiring into the reasons why the predictors should predict behavior. The previous discussion has shown the problems that have developed with the use of Fishbein's equation, and many of these problems result from the fact that he does not explore the causal role of the predictor variables in terms of situations.

An Attributional Perspective on the Attitude-Behavior Relationship

At this point it seems that the relationship between attitudes and behavior is a complex one, with a relationship present some times and absent other times. The important question then is, when and why attitudes should be related to behavior.[4] The critical variable in determining why a person's attitudes are related (or not related) to his behavior in any situation is the attributions he makes. A person's behavior will be determined by the attributions that he associates with that behavior which are based on the appropriate attitudes, beliefs, social norms, and motives of the person. Thus an attributional perspective to the problem takes into account: 1) the individual's perceptual viewpoint and 2) the mediating role of the attribution process.

In contrast to those who would limit the problem to the area of observable behaviors, this approach looks more deeply at the non-observable perceptual processes governing the attitude-behavior relationship. Just about all attempts to look at this problem have tried to force "attitudes" and "behaviors" into

limited categories that the experimenter deems relevant to the situation in question. The most extreme and common illustration of this practice is the use of single item or single object measures of attitude and single item measures of behavior. However, single item measures are notoriously unreliable (Edwards, 1957). But more importantly, even if the experimenter should be fortunate and choose the correct factor or even factors, he has no way of assessing the importance the subject places on these items through traditional means of measurement. Analogous to regression analysis, the experimenter doesn't know the beta weights that the perceiver places on the factors in each situation. Fishbein's attempt to deal with the problem directly by placing it in a regression equation has not proved satisfactory as illustrated already. No attempt to provide categories for attitudes will be successful in predicting behavior without some means of analyzing the perceptual meaning of these categories for the individual. Thus we are forced to the conclusion that to look for a factor or set of factors that are generalizable to all behavior situations is too simplistic an approach. By allowing the subject to set the categories dealing with behavior or by manipulating his perception of these factors it is possible to move from the experimenter's frame of reference to the subject's perceptual system. In so doing it becomes clear that the factors and their weightings will vary in terms of situations and people.

An attributional mediation point of view assumes that a person's attributions intervene between his cognitive system and his behaviors. Heider speaks of the process of attribution as an ordering and classifying where:

> The main features of the environment are given in representation; we find ourselves in a certain situation, and something happens which has to be fitted into the situation--it has to be attributed

> to one or the other of the contents of the environment. For instance, our subjective environment contains the self and another person and a new event occurs: one of the persons will be held responsible for it. That is, we interpret the events as being caused by particular parts of the relatively stable environment (p. 296-297, Heider, 1958).

Thus an individual orders the events in his environment by attributing the cause to some external or internal element of the environment. Basically an internal attribution depends upon the perception of freedom of action and the ability and desire to do the behavior, while external attributions depend upon the environmental constraints present. In terms of attitudes or cognitive elements and behavior, this means that a person's attributions intervene between his cognitive system and behaviors. Thus, the cognitive factors that are relevant to the behavior under consideration are determined and specified by the attributions that the individual makes in the particular instance. So, while two situations may seem patently similar, a different relationship between attitudes and behavior may still result from differential attributions made by the individual. Thus, the relationship between attitudes and behavior depends on the attributional process as it operates in an individual's perceptual system, instead of on static descriptors.

To fully see how the attribution process works in the attitude-behavior relationship, it is necessary to examine the operation of such factors as the cognitive system, behavior, motives, social influences and attitudes. There has been a growing emphasis in recent years on the nature of systems of cognitive patterning (e.g. Rokeach, 1968; Kelly, 1955; Crockett, 1965; Kelley, 1967). While the emphases of these theorists differ, they all propose some sort of system which sets forth a categorization of the cognitive elements (beliefs, attitudes, values etc.). This perspective assumes an integrated cognitive system

which guides an individual's response to his environment and thereby his behaviors. However, elements of a cognitive system will not influence behavior until they become salient to the situation and behavior at hand. Thus, it is helpful to think of a cognitive system organized in some fashion where particular elements are made salient to the situation by the attributions which are based on the individual's perceptual processes. Kelley (1967, 1969, 1971a, 1971b) has set forth some theoretical conceptions about how the attribution process works to make cognitive elements salient to the situation. The primary concern of Kelley's system is with the information that is available to an individual and the characteristics of this information. In an earlier work, Kelley (1967) argues that people often make causal attributions as if they were analyzing data patterns by means of analysis of variance. Effects are attributed to the causes with which they appear to covary rather than the ones that they appear to be independent of. Effects are analyzed in terms of the distinctiveness of entities, consistency over time and modality and the consensus of other people concerning them. Thus an effect or behavior is attributed to a causal agent that increases the stability of the information provided by the situation to the perceiver. Kelley goes on to argue that an individual will be more susceptible to influence the more unstable his prior attributions are, and thus to persuade him, the message or argument must increase the stability of his information level. In a later work, Kelley (1971b) has expanded upon this whole notion of covariance and information dependence by arguing that his earlier notion is only applicable when an individual "conducts a fullscale causal analysis." (p. 152). In most cases the causal problem does not warrant such an extensive analysis and thus an

individual draws upon his repertoire of past analyses of causal operations to make an attribution. This repertoire of past analyses are called "causal schemata" which Kelley defines as "a general conception the person has about how certain kinds of causes interact to produce a specific kind of effect" (p. 151). A schemata is based on past experience and is a pattern of data that is assumed to fit a more complete analysis of variance. In setting forth the operation of these schemata, Kelley draws heavily upon Piaget (1952), Desoto (1960), and Abelson and Kanouse (1966) to explain the different schemata. The individual uses these causal schemata to explain the data in his environment and makes attributions that can affect his attitudes and behavior. Thus, the information available to an individual will be organized by causal schemata to explain situations, thereby influencing the subsequent attitudes and behavior of the individual.

Attributions serve to explain the behavior of both the individual and others. In many instances, it is important to an individual to know what a behavior means before he undertakes it. The attribution that he associates with a certain idea will play a primary role in determining his response to a particular situation. Jones and Nisbett (1971) in an interesting article entitled "The Actor and the Observer" illustrate the different information available to people who are in the roles of actors or observers and the resulting differences in attributions that result. This distinction is based on Heider's (1958) argument that behavior for the actor has such salient properties that it tends to engulf the field. So the actor tends to attribute his actions to situational requirements, while the observer tends to attribute the same actions to stable personality dispositions. Thus we can not assume

that the attributional relationship between attitudes and behavior that the experimenter would posit is the same as the one from which the subject is operating.

At this point it becomes necessary to deal with the question of self-attributions and behavior. It is easy to visualize how the attribution process works for an observer who is trying to determine if another person is the cause of some behavior. However, it becomes another question when dealing with the attributions an individual associates with his own behavior. The attribution process can work in two ways when it comes to an individual's own behavior: 1) the direct inference of the actor's attitude from his behavior and 2) the inference of attitudes from past experiences. An individual can infer his attitude from a behavior he has committed. This involves the controversial theory of Bem (1965) that we infer our attitudes by observing our behavior much in the manner that we would infer the attitudes of another person from his behavior.[5] As Kiesler (1971) has pointed out, to infer that the person and an observer have access to the same information does not seem correct in light of Jones and Nisbett's (1971) analysis, but the idea that people can infer their attitudes, or at least check them, from their behavior is very possible. However, the individual does not just make inferences or attributions on the basis of his immediate behavior, but also uses other sources of information as the basis for attributions also. So in dealing with an individual's attribution process as it pertains to himself, it is necessary to set two further limitations. First, as Nisbett and Valins (1971) suggest a belief inference (attribution) will not result from observations of one's own behavior unless that behavior is perceived to have been elicited by one's

intrinsic reaction to the stimulus. If some stronger external force causes a person to perform a certain behavior, his behavior tells him nothing about his beliefs or attitudes. Second, when an attribution is made to an intrinsic source by the person, the attribution is not just dependent upon the immediate behavior but also upon information about past behavior and the circumstances of the particular environment under consideration (Kiesler, 1971). Thus utilizing these sources of information, the individual makes an attribution in terms of consistency and distinctiveness of information as organized by causal analysis or causal schemata.[6] So in terms of our analysis, the individual as he contemplates a behavior, utilizes information about past behaviors and the structure of the environmental situation to make an attribution about the behavior in question. This attribution may link any number of cognitive elements with the behavior in terms of the information present for the individual and thus yield several possible relationships between attitudes and behavior.

Now, if an individual utilizes all sources of information at his disposal, it is necessary to define the role of emotions and motives in this process. Attribution theory is built upon the assumption that the dominant motive of human beings is to organize the data in their environment and make it understandable. Heider (1958) builds his system on the idea of man's naive psychology which exhibits certain principles that allow him to "grasp reality . . . and predict and control it." (p. 79). Kelley (1971a) goes on to argue that attribution theory is grounded in the view of man as an "applied scientist" who is motivated to apply his knowledge of causal relations in order to exercise control over his world. The attribution processes provide the person a means of gaining a veridical view of the world while maintaining effective control over

his world. Heider (1958) argues that "motives, intentions, sentiments, etc.," are the cognitive processes that are related to overt behavior by the attributions an individual makes. Thus, what are commonly thought of as motives are subordinated to the primary motive of organized knowledge and control over a person's environment in terms of the information available to him. For example, in attribution theory, consistency is not the end product of the cognitive processes, but is rather a criterion for understanding (Jones, Kanouse, Kelley, Nisbett, Valins and Weiner, 1971). Kelley (1967) talks in terms of consistency of response over time and modality which thus utilizes consistency as one criterion for individuals to gain knowledge and control over their environment. Other motives then are operable in a person's cognitive system, but they are subordinate to the reality and control dimensions of the attribution process.

The primary role that emotions play in the attribution process and the attitude-behavior relationship is in terms of physiological arousal. When a person is aware that he is aroused, the cause and conditions of that arousal are not known outside the information available to him. Several studies seem to illustrate this phenomena of perceptual control of arousal (Schachter and Singer, 1962; Valins, 1966; Davison and Valins, 1969). In the classic Schachter and Singer (1962) study, subjects were aroused by epinephrine (a form of adrenaline) without being aware of it. Through the control of available information the experimenter was able to lead the subjects to attributions of either euphoria or anger for the same arousal. It seems that when subjects did not have a readily apparent cue for their arousal they would accept the most likely one (in terms of the available information).

Thus, the effect of an emotional arousal seems to be dependent upon the attribution as to its cause made by the person, and to the extent that the persuader can control the information available to the receiver he can control the effect of the emotional arousal.

Jones and Nisbett (1971) have argued that motives interact with attributions to exaggerate or mute the attributional tendencies of the perceiver. Kelley (1971a) has discussed what he calls "biases" which in fact may be the interaction of attributions and motives. For example, he speaks of the tendency of the individual to attribute to himself those actions of the other person that are consistent with the attributor's own interests. It seems plausible that the interactive tendencies of this "bias" may reflect the consistency and self-esteem motives modifying the attributional tendencies of the individual. Thus motives such as self-esteem, consistency, pleasure, etc., are not ignored, but are subordinated to the attributional motive.

The social situation which we singled out for attention earlier also plays an important role in this formulation at two levels. First, the social function plays an indirect role in the experiential shaping of the cognitive system and causal schemata. As each individual experiences the social interaction, his cognitive system is shaped and when a new decision arises, the social elements of the cognitive system provide sources of information for the individual in making his causal attributions. This role is analogous to the social shaping of an individual that goes into Mead's analysis of the "significant symbol."[7] Second, the social situation involved in a particular situation plays an important role in the attribution of internal or external causes. An external attribution involves some external force that is

perceived as limiting the freedom of the individual to act and thereby becoming responsible for the resultant behavior. Thus, when Ajzen (1971) found that social normative beliefs are more important in a cooperative situation he may have been picking up the fact that the social situation as exhibited in the constraints of cooperation provides an external causal attribution for the behavior. So in terms of attribution theory the information provided by the social situation functions as a constraining influence on inferences of freedom of choice.

In tying attribution theory to the attitude-behavior relationship it is necessary to take a look at the nature of attitudes and the question of deception. If the idea of an organized cognitive system is accepted, then the possibility of a range of verbal expressions representing this system is possible. Rokeach (1968) has discussed this problem in terms of the difference between opinions and underlying attitudes. He conceives of opinions as rather surface expressions of the cognitive system which may or may not reflect the underlying attitudes or beliefs of the individual. This distinction is similar to Kelman's (1962) distinction between compliance, identification and internalization. What is being expressed here is that compliance in Kelman's terms and opinion in Rokeach's terms are surface behaviors and as such are flexible and may not reflect the true underlying cognitive structure. The result may be a situation where the individual's expressed opinion may diverge from his underlying attitude as the external pressure becomes greater. Thus, when Rokeach (1968) argues that the majority of literature and studies dealing with attitudes and behavior have been solely concerned with verbal expressions of opinion, the validity of the

resultant findings becomes questionable. As a solution to this problem Rokeach (1968) would argue that we need to be more concerned with the underlying attitudes and belief systems of an individual. While this is true, it is not the whole picture in that underlying values are only brought into play insofar as they are activated by attributions that the individual makes. The only time that these underlying attitudes should form a strong link with behavior is when the individual perceives he has high freedom of choice across both the attitude and behavior variables. Thus, a high degree of perceived freedom of choice means that the individual feels that his behavior is a result of his own choice which utilizes his attitudes.

To summarize, the role of attribution theory in the attitude-behavior relationship seems to be a crucial one. When the question is shifted to the factors associated with the prediction of behavior, the resultant perspective is that of relating the cognitive system of a person and his behaviors. To explain this relationship it becomes necessary to look at the perceptual point of view of the individual in order to determine the particular weightings for the different factors in the determination of his behavior. This perceptual point of view is gained by looking at an individual's causal attributions that mediate his cognitive system and behavior. The attribution process is concerned with the information available to a person when making attributions of external or internal causes of behavior. When a fullscale analysis of causes is made, the issues of perceived freedom of action and covariance of entity, time, modality and people are crucial. When the person operates in terms of partial information, he depends on causal schemata which are experiential based conceptions of how certain causes act to produce an effect. Thus to be able

to adequately describe the relationship between attitudes and behavior in any one situation, it is necessary to know how the subject perceives the situation in terms of his causal attributions. And then the resultant relationship between cognitive factors and behavior can be explained.

What are the implications of this perspective for research? Many of the suggestions for improved methods of attitude and behavior measurement are good and should be implemented, but they cannot achieve their full worth unless the mediating link of a person's attributions is known. For example, if Rokeach's (1968) suggestions are followed in terms of measuring the value systems of an individual with distinctions between opinions and underlying attitudes, an experimenter must know which values are salient for behavior in a particular instance. The only way to discover this is to know whether the subject perceives the effect as internally or externally caused and to know the information available to him. With this information the experimenter is also in a position to be able to assess the importance of motives and social factors in a particular situation.

It should be clear from the preceding discussion that for the attitude-behavior relationship to be investigated in terms of attribution theory, the primary concern must be with the type of information available to the individual. Kelley (1967) has suggested a series of applications to such concepts as source credibility, persuasibility and group influence in terms of the types of information processed by the individual. More recently, other researchers (Kelley, 1971b; Kanouse, 1971) have explored the different informational attributions that result from types of language such as verb forms. For example, Kanouse has found that manifest verbs tend to refer to relations

people have with one type of entity (singular relationships), while subjective verbs tend to be attributed to groupings of relationships.

Specifically, in terms of the attitude-behavior relationship, two hypotheses need to be investigated: 1) the degree of relationship between underlying attitudes and behavior as a function of perceived freedom of choice and 2) the relationship between attributing a causal effect to a persuader and accepting his suggestions. Questions such as these should be explored, but a consistent relationship between attitudes and behavior should not be expected because it covaries with attribution process.

In conclusion the relationship between attitudes and behavior is central to the communication discipline and thus it should not be ignored because of the enigmatic findings concerning it. The perceptual process of attribution can provide a perspective to integrate many of these findings and stimulate new research.

FOOTNOTES

[1]This framework is adapted from Warner and DeFleur, 1969. The analysis and variations associated with each category are the products of the author.

[2]For example, Kiesler (1971) worked out of a dissonance-consistency theory framework, while Warner and DeFleur (1969) operated in terms of a sociological "field" theory. Thus, while the theoretical base and the predicted relationships differ, the use of mediating variables unites these examples.

[3]Fishbein and Raven's (1962) attitude-belief scales (A-B scales) are a set of semantic differential scales, five of which measure belief and five of which measure attitudes. Beliefs are defined as the probability dimension of a concept and attitudes are the evaluative dimension of a concept.

[4]The reader may have noticed how the focus of our investigation has moved from the relationship between attitudes and behavior, to the role of attitudes and other factors in the prediction of behavior, and finally to the question of when and why attitudes should be related to behavior. This development of the topic has reflected the expanding focus of our investigation which has been necessitated by the nature of the attitude-behavior relationship. The final definition of the question includes the two earlier ones and such other related questions as the nature of attitudes, the cognitive system and behavior.

[5]It should be noted that Bem's theory is based on a behavioristic analysis of actions and thus differs greatly from the perceptual perspective of attribution theory. Nisbett and Valins (1971), in discussing self attributions and behavior accept Bem's notion of inferences of attitudes from self-behavior, but reject his analysis of why people operate in this way.

[6]Jones and Nisbett (1971) have suggested a similar analysis where the person bases the attributions of his behavior on three types of data: 1) effect data, 2) cause data, and 3) historical data. Our analysis of attributions associated with contemplated behavior has emphasized what they would call historical data.

[7]Mead's "significant symbol" refers to an action (usually a word in terms of a symbol) which calls out the same response in the sender as the receiver. This mutuality of response refers to the "social" nature of the symbol. To the extent that a person's cognitive system is symbolic in nature, then the "social" operates to shape the cognitive system of the individual (attitudes, beliefs, etc.), and thereby attributions.

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